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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,913	02/27/2002	James J. Jakubowski	43231C	3329

109 7590 10/20/2004
THE DOW CHEMICAL COMPANY
INTELLECTUAL PROPERTY SECTION
P. O. BOX 1967
MIDLAND, MI 48641-1967

EXAMINER

NILAND, PATRICK DENNIS

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/085,913

Applicant(s)

JAKUBOWSKI ET AL.

Examiner

Patrick D. Niland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7, 9 and 13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 7, 9, and 13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

1. The amendment of 7/26/04 has been entered. Claims 7, 9, and 13 are pending.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 9, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 4092286 Noll et al..

Noll discloses the instantly claimed composition at the abstract; column 2, lines 46-68; column 4, lines 52-58; column 7, lines 65-68; column 8, lines 41-68; column 9, lines 1-15, of which the amine/water mixture of the paragraph bridging columns 8-9 will necessarily give some reaction of water with the NCO prepolymer, which falls within the scope of the instantly claimed chain extension with water, column 11, lines 8-46; and column 13, lines 25-27 and 49-50 for the instantly claimed solids content. The choice of anionic emulsifiers from the ionic emulsifiers of column 11, lines 43-45 is not so great as to remove Noll as an anticipating reference as they are the most commonly used emulsifiers from a group of anionic, cationic, and rarely used zwitterionic emulsifiers. See *In re Arkley*, 455 F 2d 586, 172 USPQ 524 (CCPA 1972) and *In re Petering*, 301 F 2d 676, 133 USPQ 275 (CCPA 1962). The lower weight fraction (note the

definition of average molecular weight in polymer chemistry) of the polyurethane of the patentee falls within the scope of the instantly claimed “alkali metal soap of a modified resin”.

There is no evidence that any additional materials of the patentee materially affect the basic and novel characteristics of the composition of the instant claims and therefore no evidence that the instant claims exclude anything from the composition of Noll through the use of the newly added “consisting essentially of” language. See MPEP 2111.03.

The hydrophilic stabilizing groups within the polyurethanes of Noll are not excluded by the instant claims which do not recite much about the polyurethane per se. Noll clearly discloses the use of the instantly claimed anionic emulsifiers, as stated above. The language of Noll relating to the necessity of these emulsifiers does nothing to contradict the positive disclosure that they may be used in the composition of Noll, which is sufficient to anticipate the instant claim language. Reference to the particle size at low levels of internal hydrophilic groups is not material in view of the fact that this argument of the applicant ignores the fact that Noll encompasses larger amounts of these ionic groups with external surfactant, which will be understood to the ordinary skilled artisan as giving lower particle sizes, e.g. that of example 1 is 0.2 micrometers, well within the instant claims. See the other examples and the above cited section of column 11. This argument fails since it is not commensurate in scope with the overall teachings of Noll. Applicant’s argument that the instant claim language excludes “internal surfactant” is not persuasive as no such language appears in the claims in any manner and the claims encompass all polyurethane molecules which can give the other required features. While the lists of components that one may choose from, i.e. the claimed Markusch groups contain the closed language of “consisting” as required of such lists, the overall composition contains no

such closed language and any additional components may be in the claimed compositions due to the overall open nature of the claims, i.e. the first occurrence of “comprising”. Note the above argument re “consisting essentially of”. This rejection is therefore maintained.

5. Claims 7, 9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 4092286 Noll et al. in view of US Pat. No. 4507426 Blake (applicant’s assumptions regarding Blake as referencing the Blake patent of the Notice of References Cited is correct).

Noll discloses the instantly claimed composition at the abstract; column 2, lines 46-68; column 4, lines 52-58; column 7, lines 65-68; column 8, lines 41-68; column 9, lines 1-15, of which the amine/water mixture of the paragraph bridging columns 8-9 will necessarily give some reaction of water with the NCO prepolymer, which falls within the scope of the instantly claimed chain extension with water, column 11, lines 8-46; and column 13, lines 25-27 and 49-50 for the instantly claimed solids content. The choice of anionic emulsifiers from the ionic emulsifiers of column 11, lines 43-45 is not so great as to remove Noll as an anticipating reference as they are the most commonly used emulsifiers from a group of anionic, cationic, and rarely used zwitterionic emulsifiers. See *In re Arkley*, 455 F 2d 586, 172 USPQ 524 (CCPA 1972) and *In re Petering*, 301 F 2d 676, 133 USPQ 275 (CCPA 1962). The lower weight fraction (note the definition of average molecular weight in polymer chemistry) of the polyurethane of the patentee falls within the scope of the instantly claimed “alkali metal soap of a modified resin”.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the dispersion forming ingredients and amounts of Noll which fall within the scope of the instant claims and which have the instantly claimed parameters because they are encompassed by Noll and would have been expected to give the dispersion properties described

by Noll. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed emulsifiers because they are shown by Blake to be useful in polyurethane emulsions (abstract and column 7, lines 21-31) and these fall within the scope of ionic emulsifiers of Noll.

There is no evidence that any additional materials of the patentee materially affect the basic and novel characteristics of the composition of the instant claims and therefore no evidence that the instant claims exclude anything from the composition of Noll through the use of the newly added "consisting essentially of" language. See MPEP 2111.03.

The hydrophilic stabilizing groups within the polyurethanes of Noll are not excluded by the instant claims which do not recite much about the polyurethane per se. Noll clearly discloses the use of the instantly claimed anionic emulsifiers, as stated above. The language of Noll relating to the necessity of these emulsifiers does nothing to contradict the positive disclosure that they may be used in the composition of Noll, which is sufficient to anticipate the instant claim language. Reference to the particle size at low levels of internal hydrophilic groups is not material in view of the fact that this argument of the applicant ignores the fact that Noll encompasses larger amounts of these ionic groups with external surfactant, which will be understood to the ordinary skilled artisan as giving lower particle sizes, e.g. that of example 1 is 0.2 micrometers, well within the instant claims. See the other examples and the above cited section of column 11. This argument fails since it is not commensurate in scope with the overall teachings of Noll. Applicant's argument that the instant claim language excludes "internal surfactant" is not persuasive as no such language appears in the claims in any manner and the claims encompass all polyurethane molecules which can give the other required features. While

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the lists of components that one may choose from, i.e. the claimed Markusch groups contain the closed language of “consisting” as required of such lists, the overall composition contains no such closed language and any additional components may be in the claimed compositions due to the overall open nature of the claims, i.e. the first occurrence of “comprising”. Note the above argument re “consisting essentially of”. This rejection is therefore maintained.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

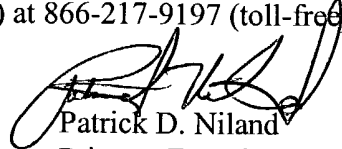
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patrick D. Niland
Primary Examiner
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